



Docket No. 1567.1016

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re the Application of:

Duck Chul Hwang et al.

Serial No. 09/911,083

Group Art Unit: 1745

Confirmation No. 2905

Filed: July 24, 2001

Examiner: Mark Ruthkosky

For: ELECTROLYTE FOR A LITHIUM SULFUR BATTERY AND A LITHIUM-SULFUR  
BATTERY USING THE SAME

**COMMENTS REGARDING STATEMENT OF REASONS FOR ALLOWANCE**

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

The Examiner provided a Statement of Reasons for Allowance in the Notice of Allowance mailed May 24, 2004, in which the Examiner indicated that claims 3-7, 9-16, 19-22, 26-27 and 30-39 were allowed based on certain features that included "an electrolyte for a lithium sulfur battery having a positive and negative electrode comprising a first solvent components with a sulfur solubility greater than 20 mM; a second solvent component with a sulfur solubility less than 20 mM and greater than 0.5 mM; a third solvent component with a high dielectric constant and a high viscosity and an electrolytic salt. The first component solvent is substantially between 5-30% (vol.) of the electrolyte. The second component is substantially between 20-70% (vol.) of the electrolyte. The third component is substantially between 20-70% (vol.) of the electrolyte." The Examiner further noted that the prior art does not teach an electrolyte does not teach an electrolyte for a lithium sulfur battery comprising a solvent mixture of these materials in the concentrations claimed. The specific concentration ranges both improve the sulfur solubility and the charge transfer characteristics of the electrolyte as noted on page 7 of the specification.

It is respectfully pointed out that the above description does not match any of the independent claims. The independent claims which recite sulfur solubilities recite that the first component solvent has a sulfur solubility greater than **or equal to** 20 mM. Independent claims 37 and 38 do not recite sulfur solubility limitations at all.

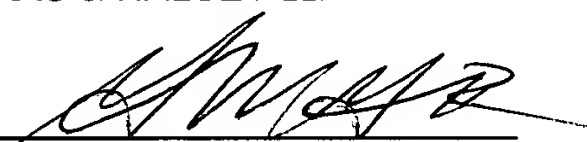
As specified in MPEP 1302.14, "care must be taken to ensure that such reasons are accurate, precise, and do not place unwarranted interpretations, whether broad or narrow, upon the claims." It is submitted that the Examiner's Statement does not meet these standards and, instead, raises "possible misinterpretations... and possible estoppel effects" (MPEP 1302.14) and, accordingly, should be disregarded.

It is submitted that the claims are not constrained by such limitations as may be implied from the Examiner's Statements, and, instead, that the claims speak for themselves as to what features are included therein and thus are their own best evidence as to the reasons for allowance of same.

Respectfully submitted,

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Date: Aug 5, 2004

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